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EXAMINER

MURPHY, RHONDA L

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### **DETAILED ACTION**

1. This office action is responsive to the communication filed on 4/13/10. Accordingly, claims 6-8 and 10 have been canceled and claims 1-5, 9 and 11-13 are currently pending.

### ***Response to Arguments***

1. Applicant's arguments filed 4/13/10 have been fully considered but they are not persuasive. In regards to claim 4, Applicants argue Examiner reads "neutralizing" broadly and states muting a channel is not neutralizing it, nor is it inhibiting the functionality of a channel. However, Examiner respectfully disagrees and would like to note the claim limitations recite "inhibiting functionality" which has not been defined in the claim language. Barnes specifically teaches "cessation of B channel communication" in column 58, lines 17-18. Additionally, in column 57, lines 66 to column 58, lines 1-3, 16-20, Barnes teaches the step of inhibiting functionality of a subset of said information channels if the signaling channel in service experience errors. It would be obvious to one skilled in the art to conclude *errors* in the signaling channel result in *congestion*. Furthermore, it would have been obvious to one skilled in the art to inhibit functionality of a subset of information channels when the signaling channel is congested, since a congested signaling channel cannot provide signaling or control data for the associated information channels.

2. In regards to claim 1, Applicants argue "Claim 1 recites that a first access has a plurality of information channels and a signaling channel, and the additional signaling

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channel is formed from a data channel of the second access but acts as a signaling channel for an information channel ("said one information channel") of the first access. Vernooij does not teach this." However, Examiner respectfully disagrees. Kobayashi is relied upon to teach a first access having a plurality of information channels and a signaling channel, and providing at least one additional signaling channel in a signaling path of a second access which also provides a plurality of information channels. Vernooij is relied upon to teach forming said additional signaling channel from a channel, which can be used as an information channel of said second access: column 3, lines 4-7.

3. Thus, it is Examiner's position that the claim limitations, as written, have been met and the rejection has been maintained.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 – 3, 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (US 5,978,380) in view of Kato (US 6,683,880) and Vernooij et al. (US 6,345,091).

**Regarding claim 1**, Kobayashi teaches a communication method using a first access (Fig. 10; physical cable 30a) providing a plurality of information channels including one information channel for transmitting voice and first data and having at least one signaling channel for transmitting signaling signals and second data relating to at least one of said access and said first data (col. 2, lines 17-21), said method further comprising the step of providing at least one additional signaling channel in a signaling path of a second access (physical cable 30b) which also provides a plurality of information channels (col. 11, lines 15-21), said additional signaling channel being on a different physical medium from said first signaling channel and for use in conjunction with said one information channel (refer to Fig. 10; physical cables 30a and 30b; further described in col. 14, lines 56-62). Additionally, it would have been obvious to one skilled in the art to provide another signaling channel on a different type of physical medium, since various types of physical media are used in communication systems and depending on the available resources, a different type of medium will provide a more sufficient means of communication.

Kobayashi further teaches priority channels (col. 10, lines 62-64), however fails to explicitly disclose determining an order of priority of the use of the signaling channels and assigning the highest priority functional signaling channel to the first access.

However, Kato teaches determining an order of priority of the use of the signaling channels, and assigning the highest priority functional signaling channel to the first access (col. 5, lines 38-47; col. 6, lines 17-20).

In view of this, it would have been obvious to one skilled in the art to modify Kobayashi's method by incorporating Kato's teaching of priority levels for the signaling channels, so as to provide an order in which the signaling channels are used and further improve reliability of the connecting service (col. 6, lines 21-23).

Kobayashi fails to explicitly disclose wherein said step of providing at least one additional signaling channel comprises the step of forming said additional signaling channel from a channel which can be used as an information channel of said second access.

However, Vernooij teaches forming said additional signaling channel from a channel, which can be used as an information channel of said second access (col. 3, lines 4-7).

In view of this, it would have been obvious to one skilled in the art to modify Kobayashi's method by including an additional signaling channel used as an information channel, in order to allow signaling data to be transmitted in an information channel.

**Regarding claim 2**, Kobayashi further teaches an information channel for transmitting voice and first data on a different physical medium from at least one of the signaling

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channels (col. 2, lines 17-21; col. 14, lines 56-62; Since the signaling- channel that supports the information channel is located on a different physical medium, the information channel is therefore, on a different physical medium from the signaling channel).

**Regarding claim 3**, the combined method of Kobayashi and Kato teach a communication method including one information channel for transmitting voice and first data and having at least one signaling channel, for which an order of priority is determined for the signaling channel.

Kobayashi and Kato fail to explicitly disclose regularly testing a highest priority signaling channel when the highest priority signaling channel is not in service.

However, it is known in the art that if a channel is determined to be not in service, a test must have been performed in order to conclude the channel is inoperative.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to perform a test on the channel when the channel is not in service, so as to provide reliability since transmission would not occur if the channel were inoperative.

**Regarding claim 5**, the combined method of Kobayashi and Kato teach a communication method including a plurality of information channels for transmitting voice and first data.

Kobayashi and Kato fail to explicitly disclose each access providing thirty information channels.

However, it is known in the art that primary rate access (PRA) – the international version of primary rate interface (PRI) – supports thirty information channels).

In view of this, it would have been obvious for Kobayashi and Kato's method to incorporate accesses including thirty information channels for the purpose of supporting thirty voice and data channels.

**Regarding claim 9**, Kobayashi teaches a method according to claim 1, wherein said first and second accesses are each ISDN accesses (col. 1, lines 14-16) having B channels for information (col. 2, lines 17-21; speech channels) and a D channel for signaling (col. 2, lines 17-21; signal channel).

Kobayashi fails to explicitly disclose a B channel of said second access converted to said additional signaling channel.

However, Vernooij teaches a B channel of said second access converted to said additional signaling channel (col. 3, lines 4-7).

In view of this, it would have been obvious to one skilled in the art to modify Kobayashi's method by converting a B channel to an additional signaling channel, in order to allow signaling data to be transmitted in an information channel.

4. Claims 4 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (US 5,978,380) in view of Kato (US 6,683,880) and Barnes et al. (US 5,416,779).



**Regarding claim 4**, Kobayashi teaches a communication method using a first access (Fig. 10; physical cable 30a) including a plurality of information channels for transmitting voice and first data and one signaling channel for transmitting signaling signals and second data relating to at least one of said access and said first data (col. 2, lines 17-21), said method further comprising the step of providing at least one additional signaling channel for use in conjunction with at least one of said information channels (col. 2, lines 17-21; common signaling channel).

Kobayashi further teaches priority channels (col. 10, lines 62-64), however fails to explicitly disclose determining an order of priority of the use of the signaling channels and assigning the highest priority functional signaling channel to the access.

However, Kato teaches determining an order of priority of the use of the signaling channels, and assigning the highest priority functional signaling channel to the access (col. 5, lines 38-47; col. 6, lines 17-20).

In view of this, it would have been obvious to one skilled in the art to modify Kobayashi's method by incorporating Kato's teaching of priority levels for the signaling channels, so as to provide an order in which the signaling channels are used and further improve reliability of the connecting service (col. 6, lines 21-23).

Kobayashi and Kato fail to explicitly disclose said method further comprising the step of inhibiting functionality of a subset of said information channels if the signaling channel in service is congested.

However, Barnes teaches the step of inhibiting functionality of a subset of said information channels if the signaling channel in service experience errors (col. 57, line

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66 to col. 58, lines 1-3, 16-20). Furthermore, it would be obvious to one skilled in the art to conclude *errors* in the signaling channel result in *congestion*.

In view of this, it would have been obvious to one skilled in the art to inhibit functionality of a subset of information channels when the signaling channel is congested, since a congested signaling channel cannot provide signaling or control data for the associated information channels.

**Regarding claim 11**, Kobayashi, Kato and Kim teach a method according to claim 4. Kobayashi fails to explicitly disclose wherein said step of inhibiting functionality comprises rendering said subset of said information channels unavailable for use in setting up calls.

However, it would have been obvious to one skilled in the art to render said subset of said information channels unavailable for use in setting up calls, since a congested signaling channel cannot provide signaling or control data for the associated information channels, thus making the information channels unavailable for use in a call setup procedure.

**Regarding claim 12**, Kobayashi, Kato and Kim teach a method according to claim 4. Kobayashi fails to explicitly disclose wherein said step of inhibiting functionality comprises rendering said subset of said information channels unavailable for use in modifying calls that have already been set up.

However, it would have been obvious to one skilled in the art to render said subset of said information channels unavailable for use in modifying calls that have

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already been set up, since a congested signaling channel cannot provide signaling or control data for the associated information channels, thus preventing call modification.

**Regarding claim 13**, Kobayashi, Kato and Kim teach a method according to claim 4.

Kobayashi fails to explicitly teach wherein said congested signaling channel is incapable of managing all signaling signal transmissions for all information channels of said first access.

However, it would have been obvious to one skilled in the art to conclude a congested signaling channel is incapable of managing all signaling signal transmissions for all information channels of said first access, since a congested signaling channel cannot provide signaling or control data for the associated information channels.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to RHONDA MURPHY whose telephone number is (571)272-3185. The examiner can normally be reached on Monday - Friday 9:00 - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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